Amendments to the Drawings

Please substitute the enclosed formal drawings sheets 6/8 & 8/8 for the corresponding formal drawing sheets originally filed with the application. The attached drawing sheets 6/8 & 8/8 include changes to FIGS. 6 & 9, which are explained below in the Remarks section of this Response.

Attachment: Replacement Sheets 6/8 & 8/8
Annotated Sheets 6/8 & 8/8 showing changes in red.

Remarks

Applicants gratefully acknowledge the indication of possible allowability of claims 1-20 if rewritten to address the 35 U.S.C. §112, first and second paragraph, rejections set forth in the Office Action of June 27, 2006. For the reasons set forth herein, all claims are believed to be in condition for allowance. **However, should the Examiner have reservations regarding any issue addressed herein, the Examiner is requested to telephone Applicants' undersigned representative to further discuss the issue.** Applicants' undersigned representative attempted to reach the Examiner on September 19, 2006, to discuss the substance of this response prior to its submission.

The objections and rejections stated in the Office Action are addressed herein in the order raised in the Office Action.

Initially, FIGS. 6 & 9 are amended in drawing sheets 6/8 & 8/8, respectively, to address certain ones of the drawings objections stated at pages 2 & 3 of the Office Action. In the amended drawings, the step of retaining isolation of loop i is added to block 960 of the process flow of FIG. 9. Support for this amendment can be found in originally filed claims 1 & 17. This amendment also addresses the claims 2 & 8 objection noted. As explained further below, return side solenoid valve Sr_i and supply side solenoid valve Ss_i are closed for loop i and processing determines whether the supply side pressure Ps_i less the value of the return side pressure Pr_i for this coolant loop is greater than a defined k value "S". If so, then isolation of loop i is retained.

With respect to claim 5, sending signal to shut off power to the associated electronics subsystem is part of the process flow of FIG. 9 at block 960, where processing sends a signal to power down rack i. As understood in the art, the term "rack" refers to an electronics rack, or "electronics subsystem" as defined at paragraph [0026] of the application. Signaling an indication of a leak is also expressly added in amended FIG. 6. Support for this amendment can be found in originally filed claim 8. Signaling an indication of a leak occurs when a rate of volume change of coolant within an expansion tank is above a leak rate set point (i.e., x2).

The objections to claims 9 & 10 are believed addressed by the above-noted discussion relative to claims 1 & 2. Support for the recitation of claim 11 occurs in the processing flow of FIG. 9 at block 945 "wait t seconds". Support for the language of claim 13 again is in FIG. 9 at

block 960 "send signal to power down rack i". Support for the program storage device claims 17-20 is provided by the flowcharts of FIGS. 6 & 9, and the discussion thereof in the specification.

Paragraphs [0043] & [0048] are amended to reference the changes to FIGS. 6 & 9 of the application. Support for the drawing amendments and the [0043] & [0048] amendments can be found in originally filed claims 1 & 8. Thus, no new matter is added to the application by any amendment presented.

For the above-noted reasons, reconsideration and withdrawal of the drawings objection is respectfully requested.

Paragraph [0002] and paragraph [0003] are amended to reference updated application information as requested at page 3 of the Office Action.

Claims 1, 3, 6, 7, 17 & 19 are amended herein to replace "the automatically checking" with "the automatic checking" as requested by the Examiner. Claim 9, line 4 has not been amended, however, since the language is believed grammatically correct and more easily read as "the means for automatically checking". Withdrawal of the claims 1-20 objection is therefore respectfully requested.

Claims 9-20 stand rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. This rejection is respectfully, but most strenuously, traversed since these claims are part of the specification as filed. The means plus function limitations of claims 9-16 are well supported by the processing flow of FIGS. 6 & 9 and the hardware depicted, for example, in FIG. 7. As referenced, for example, in FIG. 9, electronic solenoid valves are employed in performing the functions recited. Further, the specific objections to claims 9, 11 & 13 are believed addressed above with respect to the drawings and specification amendments.

Claims 17-20 are believed supported by the processing flowcharts of FIGS. 6 & 9, as well as, for example, the discussion at paragraphs [0051] – [0053]. Applicants note that there is no requirement under U.S. patent law that an exemplary program be provided in order to recite a computer program. By way of example, FIG. 4 shows the existence of a control system

microcode, which in one example, comprises the logic flow of FIGS. 6 & 9. MPEP 2106.02 states that "while no specific universally applicable rule exists for recognizing an insufficiently disclosed application involving computer programs, an examining guideline to generally follows to challenge the sufficiency of such disclosures which fail to include either the program product itself *or a reasonably detailed flowchart which delineates the sequence of operations the program must perform.*" In this case, Applicants have clearly provided detailed flowcharts (i.e., FIGS. 6 & 9) which delineate the sequence of operations performed by the program. As such, Applicants have provided sufficient written description and enablement of the invention, and request reconsideration and withdrawal of the rejections thereof.

Claims 9-20 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with enablement requirement.

In order to properly make a rejection for failure to comply with the enablement requirement of under 35 U.S.C. §112, first paragraph, "the examiner has the initial burden to establish a reasonable basis to question the enablement provided for the claimed invention." MPEP 2164.04 citing In re Wright, 999 F.2d 1557, 1562, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993). "A specification disclosure which contains a teaching of the manner and process of making and using an invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented must be taken as being in compliance with the enablement requirement of 35 U.S.C. §112, first paragraph, unless there is a reason to doubt the objective truth of the statements contained therein which must be relied on for enabling support." MPEP §2164.04. If there exists sufficient reason for such doubt, "'it is incumbent upon the Patent Office, whenever a rejection on this basis is made, to explain why it doubts the truth or accuracy of any statement in a supporting disclosure and to back up assertions of its own with acceptable evidence or reasoning which is inconsistent with the contested statement.'" MPEP 2164.04 quoting In re Marzocchi, 439 F.2d 220, 224, 169 USPQ 367, 370 (CCPA 1971). The supporting disclosure is presumptively accurate unless the examiner provides acceptable evidence or reasoning to the contrary. 439 F.2d at 224, 169 USPQ at 370.

> The explanation of a rejection under 35 U.S.C. §112, first paragraph should focus on those factors, reasons, and evidence that lead the examiner to conclude that the specification fails to teach how to make and use the claimed invention without undue experimentation, or that the

> scope of any enablement provided to one skilled in the art is not commensurate with the scope of protection sought by the claims. This can be done by making specific findings of fact, supported by the evidence, and then drawing conclusions based on these findings of fact. For example, doubt may arise about enablement because information is missing about one or more essential parts or relationships between parts which one skilled in the art could not develop without undue experimentation. In such a case, the examiner should specifically identify what information is missing and why one skilled in the art could not supply the information without undue experimentation. MPEP §2164.04.

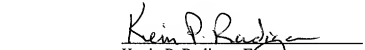
As amended, the drawings and specification provide an explanation of the means for retaining isolation of the at least one coolant loop from coolant flow through the cooling system upon detection of a drop in coolant pressure in the at least one coolant loop as recited in claim 9, the means for waiting a defined interval as recited in claim 11, and the means for sending a signal to shut off power to the associated electronics subsystem when a leaking coolant loop is detected as recited in claim 13. Each of these components are addressed in FIG. 9, as well as the example of FIG. 7. With regard to claims 17-20, Applicants again submit that one of ordinary skill in the art can readily implement the invention without undue experimentation with the information provided, including the detailed flowcharts of FIGS. 6 & 9, and the supporting discussion thereof. As noted above with respect to MPEP 2106.02, there is no requirement that an exemplary program be provided with respect to claims 17-20. Since no evidence has been provided by the Office as to why one of ordinary skill in the art would not be able to readily implement the processing flow presented, nor has the Office provided a reasonable basis to challenge the sufficiency of the disclosure as amended herein, it is respectfully submitted that the 35 U.S.C. §112, first paragraph, rejection to claims 17-20 also be withdrawn.

Further, claims 1-20 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which Applicants regard as the invention. However, in support of this alleged rejection, MPEP §2173.05(c) is cited. This section applies to the recitation of *numerical ranges and amounts limitations* in a claim. Clearly, the claims at issue do not recite numerical ranges or amounts limitations, nor do they recite language followed by "such as". Thus, reconsideration and withdrawal of the rejection is respectfully requested. The claims at issue introduce the concept of automatically checking at least one coolant loop of the coolant system for a leak and then

recite "the automatic checking including isolating the at least one coolant loop from coolant flow through the cooling system and checking for dropping coolant pressure within the at least one coolant loop." No indefiniteness is believed presented to one of ordinary skill in the art based upon this recitation, and as such, reconsideration and withdrawal of the rejection is respectfully requested. Similarly, claims 9, 11, 13 & 17-20 are believed allowable for the same reasons noted above. The form of the computer program product claims 17-20 is a well-accepted form for reciting the subject matter at issue, having been accepted by the Patent Office for at least the last decade. Applicants' undersigned representative has personally obtained allowance of hundreds of applications utilizing this exact language format. Should the Examiner continue to entertain reservations regarding these claims, the Examiner is requested to telephone Applicants' undersigned representative to discuss the language further.

For all of the above reasons, the application is believed to be in condition for allowance, and such action is respectfully requested. Applicants' undersigned representative is available should the Examiner wish to discuss this Response and the pending application further.

Respectfully submitted,



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